



#6

SEQUENCE LISTING

<110> Sleeman, Lorna
Sleeman, Matthew
Abernethy, Nevin
Onrust, Rene
Kumble, Anand
Murison, Greg

<120> Compositions Isolated From Stromal Cells
and Methods For Their Use

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<170> FastSEQ for Windows Version 4.0

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Pro	Arg	Val	Gly	Cys	Ser	Glu	Tyr	Thr	Asn	Arg	Ser	Cys	Glu	Glu	Cys
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Leu	Arg	Asn	Val	Ser	Cys	Leu	Trp	Cys	Asn	Glu	Asn	Lys	Ala	Cys	Met
		50				55					60				
Asp	Tyr	Pro	Val	Arg	Lys	Ile	Leu	Pro	Pro	Ala	Ser	Leu	Cys	Lys	Leu
65					70					75					80
Ser	Ser	Ala	Arg	Trp	Gly	Val	Cys	Trp	Val	Asn	Phe	Glu	Ala	Leu	Ile
				85					90					95	
Ile	Thr	Met	Ser	Val	Leu	Gly	Gly	Ser	Val	Leu	Leu	Gly	Ile	Thr	Val
			100					105					110		
Cys	Cys	Cys	Tyr	Cys	Cys	Arg	Arg	Lys	Lys	Ser	Arg	Lys	Pro	Asp	Lys
		115					120					125			
Ser	Asp	Glu	Arg	Ala	Met	Arg	Glu	Gln	Glu	Glu	Arg	Arg	Val	Arg	Gln
		130				135					140				
Glu	Glu	Arg	Arg	Ala	Glu	Met	Lys	Ser	Arg	His	Asp	Glu	Ile	Arg	Lys
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<210> 13

[illegible]

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			20					25					30		
Cys	Gly	Pro	Cys	Ser	Thr	Thr	Ser	Pro	Ser	Thr	Trp	Val	Leu	Cys	Pro
			35				40					45			
Leu	Pro	Met	Ser	Pro	Leu	Cys	Pro	Thr	Cys	Val	Ser	Thr	Met	Thr	Leu
			50			55				60					
Ala	Thr	Cys	Thr	Cys	Pro	Trp	Ser	Thr	Thr	Cys	Pro	Cys	Thr	Leu	Ala
65				70					75					80	
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Glu	Ser	Val	Gly	Gly	Pro	Ser	Leu	Ile	Phe						
			100				105								

<400> 14

7

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<211> 66																					
<212> PRT																					
<213> Mouse																					
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Cys	Val	Val	Leu	Ile	Cys	Ile	Phe	Thr	Lys	Ser	Gln	Arg	Leu	Lys	Ala						
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Val	Val	Leu	Gly	Gly	Ala	Gln	Val	Ala	Leu	Val	Leu	Gly	Tyr	Cys	Pro						
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Asp	Val	Asn	Thr	Val	Leu	Gly	Ala	Ser	Leu	Glu	Gly	Ser	Gln	Asp	Lys						
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Val	Ala	Ala	Lys	Leu	Ala	Ser	Ser	Ser	Leu	Leu	Val	Asp	Arg	Ala	Lys						
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Ala	Val	Ser	Gln	Asp	Gln	Ala	Gly	His	Glu	Asp	Trp	Glu	Val	Val	Ser						
			180								185						190				
Arg	His	Ser	Ser	Trp	Gly	Ser	Val	Gly	Leu	Gly	Gly	Ser	Leu	Glu	Ala						
			195								200						205				
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Pro	Gln	Gln	Val	Ser	Ile	Gln	Phe	Gln	Val	His	Tyr	Thr	Thr	Asn	Thr	
				245					250					255		
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Trp	Asn	Thr	Tyr	Ile	Pro	Leu	His	Tyr	Cys	Lys	Asp	Gly	Leu	Trp	Ser	
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His	Ser	Val	Phe	Leu	Pro	Ala	Asp	Thr	Val	Val	Glu	Trp	Lys	Phe	Val	
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Ile His

<210> 17
 <211> 119
 <212> PRT
 <213> Mouse

<400> 17																
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Val	Pro	Phe	Thr	Glu	Lys	Asp	Phe	Glu	Asn	Gly	Pro	Gln	Asn	Ile	Tyr	
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Asn	Leu	Tyr	Glu	Gln	Val	Ser	Tyr	Asn	Cys	Phe	Ile	Ala	Ala	Gly	Leu	
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Tyr	Leu	Leu	Leu	Gly	Gly	Phe	Ser	Phe	Cys	Gln	Val	Arg	Leu	Asn	Lys	
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<210> 18
 <211> 280
 <212> PRT
 <213> Mouse

<400> 18																
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Val	Ala	Gly	Ser	Gly	Glu	Ala	Glu	Gly	Ser	Ser	Ala	Ser	Ser	Pro	Ser	
		35					40				45					
Leu	Pro	Pro	Pro	Gly	Thr	Pro	Ala	Phe	Ser	Pro	Thr	Pro	Glu	Arg	Pro	
	50					55					60					
Gln	Pro	Thr	Ala	Leu	Asp	Gly	Pro	Val	Pro	Pro	Thr	Asn	Leu	Leu	Glu	
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[illegible]

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<211> 188
<212> PRT
<213> Mouse
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<400> 19

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			20					25					30		
Ala	Ser	Gly	Asn	His	Ser	Val	Leu	Thr	Ser	Asn	Ile	Asn	Ile	Thr	Glu
		35					40					45			
Asn	Thr	Asn	Gln	Thr	Met	Ser	Val	Val	Ser	Asn	Gln	Thr	Ser	Glu	Met
	50					55					60				
Gln	Ser	Thr	Ala	Lys	Pro	Ser	Val	Leu	Pro	Lys	Thr	Thr	Thr	Leu	Ile
65					70					75				80	
Thr	Val	Lys	Pro	Ala	Thr	Ile	Val	Lys	Ile	Ser	Thr	Pro	Gly	Val	Leu
				85					90					95	
Pro	His	Val	Thr	Pro	Thr	Ala	Ser	Lys	Ser	Thr	Pro	Asn	Ala	Ser	Ala
			100					105					110		
Ser	Pro	Asn	Ser	Thr	His	Thr	Ser	Ala	Ser	Met	Thr	Thr	Pro	Ala	His
		115					120					125			
Ser	Ser	Leu	Leu	Thr	Thr	Val	Thr	Val	Ser	Ala	Thr	Thr	His	Pro	Thr
	130					135					140				
Lys	Gly	Lys	Gly	Ser	Lys	Phe	Asp	Ala	Gly	Ser	Phe	Val	Gly	Gly	Ile
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Gly	Val	Asn	Thr	Gly	Ser	Phe	Ile	Tyr	Ser	Leu	His	Trp	Met	Gln	Asn
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Val	Leu	Phe	Lys	Lys	Arg	His	Ser	Val	Pro	Lys	His				
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<210> 20
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<212> PRT
<213> Mouse

<400> 20

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Gly Gly Val Cys Trp Leu Gln Gln Gly Arg Glu Ala Thr Cys Ser Leu
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Val Leu Lys Thr Arg Val Ser Arg Glu Glu Cys Cys Ala Ser Gly Asn
      50           55           60
Ile Asn Thr Ala Trp Ser Asn Phe Thr His Pro Gly Asn Lys Ile Ser
      65           70           75           80
Leu Leu Gly Phe Leu Gly Leu Val His Cys Leu Pro Cys Lys Asp Ser
      85           90           95
Cys Asp Gly Val Glu Cys Gly Pro Gly Lys Ala Cys Arg Asn Ala Gly
      100          105          110
Gly Ala Ser Asn Asn Cys Glu Cys Val Pro Asn Cys Glu Gly Phe Pro
      115          120          125
Ala Gly Phe Gln Val Cys Gly Ser Asp Gly Ala Thr Tyr Arg Asp Glu
      130          135          140
Cys Glu Leu Arg Thr Ala Arg Cys Arg Gly His Pro Asp Leu Arg Val
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Met Tyr Arg Gly Arg Cys Gln Lys Ser Cys Ala Gln Val Val Cys Pro
      165          170          175
Arg Pro Gln Ser Cys Leu Val Asp Gln Thr Gly Ser Ala His Cys Val
      180          185          190
Val Cys Arg Ala Ala Pro Cys Pro Val Pro Ser Asn Pro Gly Gln Glu
      195          200          205
Leu Cys Gly Asn Asn Asn Val Thr Tyr Ile Ser Ser Cys His Leu Arg
      210          215          220
Gln Ala Thr Cys Phe Leu Gly Arg Ser Ile Gly Val Arg His Pro Gly
      225          230          235          240
Ile Cys Thr Gly Gly Pro Lys Phe Leu Lys Ser Gly Asp Ala Ala Ile
      245          250          255
Val Asp Met Val Pro Gly Lys Pro Met Cys Val Glu Ser Phe Ser Asp
      260          265          270
Tyr Pro Pro Leu Gly Arg Phe Ala Val Arg Asp Met Arg Gln Thr Val
      275          280          285
Ala Val Gly Val Ile Lys Ala Val Asp Lys Lys Ala Ala Gly Ala Gly
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Lys Val Thr Lys Ser Ala Gln Lys Ala Gln Lys Ala Lys
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<212> DNA
<213> Mouse

<220>

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 <212> DNA
 <213> Mouse

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 <212> DNA
 <213> Mouse

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[illegible]

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[illegible]

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caccgtgcaa	actgcagtgc	ccggggccatg	ccctccccct	tcgccttcga	ctccgcctcc		1020
accttcaact	ccgcccctcac	ctccgccttc	acctctgccc	acattatcaa	cacctagccc		1080
ctctttaatg	cctactgggt	acaaatccat	ggagctgagt	gacatttcca	atgaaaactg		1140
ccgaataaac	agatatggct	acttcagagc	caccatcaca	attgtagagg	ggatcctgga		1200
agtcagcttc	atgcagatat	cagatgtccc	catgcccaca	ccgcagcctg	ccaactcctc		1260
catggagactc	actgtgacct	gcaaaggggc	cacccccatg	gaagcttgta	cgatcatctc		1320
cgacccccacc	tgccagatcg	cccagaaccg	ggctgcagc	cctgtggctg	tggatgggct		1380
tgccctgctg	tctgtgagaa	gagccttcaa	tgggtctggc	acctactgtg	tgaatttcac		1440
tctgggagat	gatgcaaacc	tggccctcac	cagcacctcg	atctctatcc	ctggcaaaga		1500

cccagactcc	cctctgagag	cagtgaatgg	tgtcctgac	tccattggct	gcctggctgt	1560
gcttgtcacc	atggttacca	tcttgctgta	caaaaaacac	aaggcgtaca	agccaatagg	1620
aaactgcccc	aggaacacgg	tcaagggcaa	aggcctgagt	gttctcctca	gccacgcgaa	1680
agccccgttc	ttccgaggag	accaggagaa	ggatccattg	ctccaggaca	agccaaggac	1740
actctaagtc	tttggccttc	cctctgacca	ggaaccact	cttctgtgca	tgtatgtgag	1800
ctgtgcagaa	gtatgtggct	gggaactggt	gttctctaag	gattattgta	aaatgtatat	1860
cgtggccttag	ggagtgtggt	taaatagcat	tttagagaag	acatgggaag	acttagtggt	1920
tcttccccatc	tgtattgtgg	tttttacact	gttcgtgggg	tggacacgct	gtgtctgaag	1980
gggaggtggg	gtcactgcta	cttaaggctc	taggttaact	gggggagata	ccacagatgc	2040
ctcagctttc	cacataacat	gggcatgaac	ccagctaatc	accacctgaa	ggccatgctt	2100
catctgcctt	ccaactcact	gagcatgcct	gagctcctga	caaaattata	atgggcccg	2160
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<210> 28

<211> 412

<212> DNA

<213> Mouse

<400> 28

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cctcggttgg	acggtttcat	ccttaccgag	cgcttgggca	gtggcacgta	cgccacggtg	180
tacaaggcct	acgccaagaa	ggatactcgg	gaagtggtag	ccataaaaatg	cgtggccaag	240
aagagtctca	acaaggcgtc	agtggaaaac	ctcctgactg	agattgagat	cctcaagggc	300
attcggcacc	cccatatcgt	gcagctgaaa	gacttccagt	gggacaatga	caatatctac	360
ctcatcatgg	agttctgtgc	aggggggtgac	ctgtctcgct	tcattcatac	cc	412

<210> 29

<211> 437

<212> DNA

<213> Mouse

<400> 29

cacagtcttg	tttctgggtg	ctttgatcac	tgtggggatg	aacactacct	atgtagtgtc	60
ttgccccaaa	gaatttgaaa	aacctggagc	ttgtcccaag	ccttcaccag	aaagtgttgg	120
aattttgtgtt	gatcaatgct	caggagatgg	atcctgcctt	ggcaacatga	agtgtgttag	180
caatagctgt	ggtcatgtct	gcaaaaactcc	tgtcttttaa	atggttgaca	gccatgtgga	240
agatggattc	aatcttcata	aacatgaatg	atggccagcc	ccagaagatt	tcttctgaat	300
tcacagagcc	tgtgcttggc	tacttcctag	ccctagaatt	gcattcttgg	acaaggaaga	360
tctatattgt	ggtgacaatg	ccctaatatg	tctgtgtcca	aaataaacta	cccttagcat	420
tcaaaaaaaaa	aaaaaaaa					437

<210> 30

<211> 126

<212> PRT

<213> Mouse

<220>

<221> VARIANT

<222> (1) ... (126)

<223> Xaa = Any Amino Acid

<400> 30

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1				5					10					15	
Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu
			20					25					30		

Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val
		35					40					45			
Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn
	50					55					60				
Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile
65					70					75					80
Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu
				85					90					95	
Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser
			100					105					110		
Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Xaa	Gly	Ile	Pro		
		115					120					125			

<210> 31
 <211> 529
 <212> PRT
 <213> Mouse

<400> 31

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20					25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40						45		
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
				85				90						95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
		115					120					125			
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg
	130					135					140				
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145					150					155					160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
				165				170						175	
Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala
			180					185					190		
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
		195					200					205			
Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly
	210					215					220				
Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser
225					230					235					240
Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
				245					250					255	
Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro
			260					265					270		
Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
		275					280					285			
Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr
		290				295						300			

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09823033-071201

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Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg
      165      170      175
Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly
      180      185      190
Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
      195      200      205
Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
      210      215      220
Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln Asp Asp Ala Gly Met
      225      230      235
Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
      245      250      255
Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro Pro Gly Pro Pro Met
      260      265      270
Ala Ser Ser Ser Ser Ser Thr Ser Leu Pro Trp Pro Val Val Ile Gly
      275      280      285
Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Val Leu Leu Trp Leu
      290      295      300
Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala Ser Thr Leu Pro Val
      305      310      315
Pro Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys
      325      330      335
Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala
      340      345      350
Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys
      355      360      365
Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His
      370      375      380
Thr Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro
      385      390      395
Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys
      405      410      415
Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu
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Asn Asn Gly Gly Arg Val Ser
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<210> 33
 <211> 322
 <212> PRT
 <213> Human

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<400> 33
Arg Arg Ala Pro Cys Cys Cys Ser Cys Cys Arg Arg Cys Cys Trp Gly
  1      5      10      15
Pro Ser His Arg Pro Pro Pro Pro Glu Ala Pro Gln Arg Trp Arg Thr
  20      25      30
Arg Trp Ser His Gly Arg Trp Pro Ala Gly Pro His Cys Ala Ala Ala
  35      40      45
Val Pro Val Glu Gly Asp Pro Pro Leu Thr Met Trp Thr Lys Asp
  50      55      60
Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln
  65      70      75      80
Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val Tyr Val
  85      90      95
Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu
  100      105      110

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Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly	Pro	Asp
		115					120					125			
Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg
		130					135				140				
Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg
145					150					155					160
Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro
				165					170					175	
Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr	Arg	Pro
			180					185					190		
Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn
		195					200					205			
Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Arg
	210					215					220				
Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr
225					230					235					240
Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val
				245					250					255	
Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val
			260					265					270		
Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly
		275					280					285			
Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu
	290					295					300				
Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys
305					310					315					320
Pro	Leu														

<210> 34
 <211> 102
 <212> PRT
 <213> Mouse

<400> 34

Met	Lys	Phe	Leu	Leu	Ile	Ser	Leu	Ala	Leu	Trp	Leu	Gly	Thr	Val	Gly
1				5					10					15	
Thr	Arg	Gly	Thr	Glu	Pro	Glu	Leu	Ser	Glu	Thr	Gln	Arg	Arg	Ser	Leu
			20					25					30		
Gln	Val	Ala	Leu	Glu	Glu	Phe	His	Lys	His	Pro	Pro	Val	Gln	Leu	Ala
		35					40					45			
Phe	Gln	Glu	Ile	Gly	Val	Asp	Arg	Ala	Glu	Glu	Val	Leu	Phe	Ser	Ala
		50				55					60				
Gly	Thr	Phe	Val	Arg	Leu	Glu	Phe	Lys	Leu	Gln	Gln	Thr	Asn	Cys	Pro
65					70					75				80	
Lys	Lys	Asp	Trp	Lys	Lys	Pro	Glu	Cys	Thr	Ile	Lys	Pro	Asn	Gly	Ala
				85					90					95	
Glu	Met	Pro	Gly	Leu	His										
			100												

<210> 35
 <211> 147
 <212> PRT
 <213> Mouse

<400> 35

Met	Lys	Phe	Leu	Leu	Ile	Ser	Leu	Ala	Leu	Trp	Leu	Gly	Thr	Val	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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1				5					10					15		
Thr	Arg	Gly	Thr	Glu	Pro	Glu	Leu	Ser	Glu	Thr	Gln	Arg	Arg	Ser	Leu	
			20					25					30			
Gln	Val	Ala	Leu	Glu	Glu	Phe	His	Lys	His	Pro	Pro	Val	Gln	Leu	Ala	
		35					40					45				
Phe	Gln	Glu	Ile	Gly	Val	Asp	Arg	Ala	Glu	Glu	Val	Leu	Phe	Ser	Ala	
	50					55					60					
Gly	Thr	Phe	Val	Arg	Leu	Glu	Phe	Lys	Leu	Gln	Gln	Thr	Asn	Cys	Pro	
65				70						75				80		
Lys	Lys	Asp	Trp	Lys	Pro	Glu	Cys	Thr	Ile	Lys	Pro	Asn	Gly	Arg		
			85					90					95			
Arg	Arg	Lys	Cys	Leu	Ala	Cys	Ile	Lys	Met	Asp	Pro	Lys	Gly	Lys	Ile	
			100					105					110			
Leu	Gly	Arg	Ile	Val	His	Cys	Pro	Ile	Leu	Lys	Gln	Gly	Pro	Gln	Asp	
		115					120					125				
Pro	Gln	Glu	Leu	Gln	Cys	Ile	Lys	Ile	Ala	Gln	Ala	Gly	Glu	Asp	Pro	
	130					135					140					
His	Gly	Tyr														
145																

<210> 36
 <211> 574
 <212> PRT
 <213> Mouse

<400> 36																
Met	Glu	Ser	Leu	Cys	Gly	Val	Leu	Gly	Phe	Leu	Leu	Leu	Ala	Ala	Gly	
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Leu	Pro	Leu	Gln	Ala	Ala	Lys	Arg	Phe	Arg	Asp	Val	Leu	Gly	His	Glu	
			20					25					30			
Gln	Tyr	Pro	Asn	His	Met	Arg	Glu	His	Asn	Gln	Leu	Arg	Gly	Trp	Ser	
		35					40					45				
Ser	Asp	Glu	Asn	Glu	Trp	Asp	Glu	His	Leu	Tyr	Pro	Val	Trp	Arg	Arg	
	50					55					60					
Gly	Asp	Gly	Arg	Trp	Lys	Asp	Ser	Trp	Glu	Gly	Gly	Arg	Val	Gln	Ala	
65				70					75					80		
Val	Leu	Thr	Ser	Asp	Ser	Pro	Ala	Leu	Val	Gly	Ser	Asn	Ile	Thr	Phe	
			85						90					95		
Val	Val	Asn	Leu	Val	Phe	Pro	Arg	Cys	Gln	Lys	Glu	Asp	Ala	Asn	Gly	
			100					105					110			
Asn	Ile	Val	Tyr	Glu	Lys	Asn	Cys	Arg	Asn	Asp	Leu	Gly	Leu	Thr	Ser	
		115					120					125				
Asp	Leu	His	Val	Tyr	Asn	Trp	Thr	Ala	Gly	Ala	Asp	Asp	Gly	Asp	Trp	
	130					135					140					
Glu	Asp	Gly	Thr	Ser	Arg	Ser	Gln	His	Leu	Arg	Phe	Pro	Asp	Arg	Arg	
145				150						155				160		
Pro	Phe	Pro	Arg	Pro	His	Gly	Trp	Lys	Lys	Trp	Ser	Phe	Val	Tyr	Val	
				165					170					175		
Phe	His	Thr	Leu	Gly	Gln	Tyr	Phe	Gln	Lys	Leu	Gly	Arg	Cys	Ser	Ala	
			180					185					190			
Arg	Val	Ser	Ile	Asn	Thr	Val	Asn	Leu	Thr	Ala	Gly	Pro	Gln	Val	Met	
		195					200					205				
Glu	Val	Thr	Val	Phe	Arg	Arg	Tyr	Gly	Arg	Ala	Tyr	Ile	Pro	Ile	Ser	
	210					215					220					
Lys	Val	Lys	Asp	Val	Tyr	Val	Ile	Thr	Asp	Gln	Ile	Pro	Val	Phe	Val	
225				230						235				240		
Thr	Met	Ser	Gln	Lys	Asn	Asp	Arg	Asn	Leu	Ser	Asp	Glu	Ile	Phe	Leu	

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Arg	Asp	Leu	Pro	Ile	Val	Phe	Asp	Val	Leu	Ile	His	Asp	Pro	Ser	His
			260						265				270		
Phe	Leu	Asn	Asp	Ser	Ala	Ile	Ser	Tyr	Lys	Trp	Asn	Phe	Gly	Asp	Asn
		275					280				285				
Thr	Gly	Leu	Phe	Val	Ser	Asn	Asn	His	Thr	Leu	Asn	His	Thr	Tyr	Val
	290					295					300				
Leu	Asn	Gly	Thr	Phe	Asn	Leu	Asn	Leu	Thr	Val	Gln	Thr	Ala	Val	Pro
305					310					315					320
Gly	Pro	Cys	Pro	Pro	Pro	Ser	Pro	Ser	Thr	Pro	Pro	Pro	Pro	Ser	Thr
				325					330					335	
Pro	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Leu	Pro	Thr	Leu	Ser	Thr	Pro	Ser
			340					345					350		
Pro	Ser	Leu	Met	Pro	Thr	Gly	Tyr	Lys	Ser	Met	Glu	Leu	Ser	Asp	Ile
		355					360					365			
Ser	Asn	Glu	Asn	Cys	Arg	Ile	Asn	Arg	Tyr	Gly	Tyr	Phe	Arg	Ala	Thr
	370					375					380				
Ile	Thr	Ile	Val	Glu	Gly	Ile	Leu	Glu	Val	Ser	Ile	Met	Gln	Ile	Ala
385					390					395					400
Asp	Val	Pro	Met	Pro	Thr	Pro	Gln	Pro	Ala	Asn	Ser	Leu	Met	Asp	Phe
				405					410					415	
Thr	Val	Thr	Cys	Lys	Gly	Ala	Thr	Pro	Met	Glu	Ala	Cys	Thr	Ile	Ile
			420					425					430		
Ser	Asp	Pro	Thr	Cys	Gln	Ile	Ala	Gln	Asn	Arg	Val	Cys	Ser	Pro	Val
		435					440					445			
Ala	Val	Asp	Gly	Leu	Cys	Leu	Leu	Ser	Val	Arg	Arg	Ala	Phe	Asn	Gly
	450					455					460				
Ser	Gly	Thr	Tyr	Cys	Val	Asn	Phe	Thr	Leu	Gly	Asp	Asp	Ala	Ser	Leu
465					470					475					480
Ala	Leu	Thr	Ser	Thr	Leu	Ile	Ser	Ile	Pro	Gly	Lys	Asp	Pro	Asp	Ser
				485					490					495	
Pro	Leu	Arg	Ala	Val	Asn	Gly	Val	Leu	Ile	Ser	Ile	Gly	Cys	Leu	Ala
			500					505					510		
Val	Leu	Val	Thr	Met	Val	Thr	Ile	Leu	Leu	Tyr	Lys	Lys	His	Lys	Ala
		515					520					525			
Tyr	Lys	Pro	Ile	Gly	Asn	Cys	Pro	Arg	Asn	Thr	Val	Lys	Gly	Lys	Gly
	530					535					540				
Leu	Ser	Val	Leu	Leu	Ser	His	Ala	Lys	Ala	Pro	Phe	Phe	Arg	Gly	Asp
545					550					555					560
Gln	Glu	Lys	Asp	Pro	Leu	Leu	Gln	Asp	Lys	Pro	Arg	Thr	Leu		
				565					570						

<210> 37
 <211> 137
 <212> PRT
 <213> Mouse

<400> 37

Ala	Glu	Ser	Arg	Leu	Ala	Ala	Pro	Arg	Ala	Pro	Pro	Ala	Ser	Leu	Leu
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Ala	Gly	Thr	Cys	Thr	Pro	Asn	Gln	Glu	Ala	Pro	Gly	Gly	Gly	Arg	Gly
			20					25				30			
Met	Ala	Gly	Pro	Ser	Trp	Gly	Leu	Pro	Arg	Leu	Asp	Gly	Phe	Ile	Leu
		35					40					45			
Thr	Glu	Arg	Leu	Gly	Ser	Gly	Thr	Tyr	Ala	Thr	Val	Tyr	Lys	Ala	Tyr
	50					55					60				
Ala	Lys	Lys	Asp	Thr	Arg	Glu	Val	Val	Ala	Ile	Lys	Cys	Val	Ala	Lys

65					70					75				80	
Lys	Ser	Leu	Asn	Lys	Ala	Ser	Val	Glu	Asn	Leu	Leu	Thr	Glu	Ile	Glu
				85					90					95	
Ile	Leu	Lys	Gly	Ile	Arg	His	Pro	His	Ile	Val	Gln	Leu	Lys	Asp	Phe
			100					105					110		
Gln	Trp	Asp	Asn	Asp	Asn	Ile	Tyr	Leu	Ile	Met	Glu	Phe	Cys	Ala	Gly
		115					120				125				
Gly	Asp	Leu	Ser	Arg	Phe	Ile	His	Thr							
	130					135									

<210> 38
 <211> 72
 <212> PRT
 <213> Mouse

<400> 38															
Thr	Val	Leu	Phe	Leu	Val	Ala	Leu	Ile	Thr	Val	Gly	Met	Asn	Thr	Thr
1				5				10						15	
Tyr	Val	Val	Ser	Cys	Pro	Lys	Glu	Phe	Glu	Lys	Pro	Gly	Ala	Cys	Pro
			20					25					30		
Lys	Pro	Ser	Pro	Glu	Ser	Val	Gly	Ile	Cys	Val	Asp	Gln	Cys	Ser	Gly
		35					40					45			
Asp	Gly	Ser	Cys	Pro	Gly	Asn	Met	Lys	Cys	Cys	Ser	Asn	Ser	Cys	Gly
	50					55					60				
His	Val	Cys	Lys	Thr	Pro	Val	Phe								
65					70										

<210> 39
 <211> 1587
 <212> DNA
 <213> Mouse

<400> 39															
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 <211> 2435
 <212> DNA
 <213> Mouse

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<210> 41
 <211> 1720
 <212> DNA
 <213> Mouse

<400> 41

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<210> 42

<211> 1008

<212> DNA

<213> Mouse

<400> 42

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<210> 43

<211> 1871

<212> DNA
<213> Mouse

<400> 43

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<211> 3767
<212> DNA
<213> Mouse

<400> 44

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ccctagtaca	tttcttgggt	ctcacactaa	cctgcttcac	cgttacgctg	cccaagggtca	3660
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Asp	Val	Glu	Thr	Ile	Asp	Lys	Phe	Asn	Asn	Tyr	Arg	Leu	Phe	Pro	Arg		
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Tyr	Val	Asp	Leu	Leu	Leu	Asn	Pro	Glu	Arg	Tyr	Thr	Gly	Tyr	Lys	Gly		
			180					185					190				
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Trp	Gly	His	Asn	Val	Thr	Glu	Phe	Gln	Gln	Arg	Phe	Asp	Gly	Ile	Leu		
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Thr	Glu	Gly	Glu	Gly	Pro	Arg	Arg	Leu	Arg	Asn	Leu	Tyr	Phe	Leu	Tyr		
	290				295						300						
Leu	Ile	Glu	Leu	Arg	Ala	Leu	Ser	Lys	Val	Leu	Pro	Phe	Phe	Glu	Arg		
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Lys	Leu	Lys	Glu	Asp	Phe	Arg	Leu	His	Phe	Arg	Asn	Ile	Ser	Arg	Ile		
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	385				390					395					400		
Thr	Gln	Gly	Leu	Gly	Thr	Ala	Leu	Lys	Ile	Leu	Phe	Ser	Glu	Lys	Leu		
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Ile	Ala	Asn	Met	Pro	Glu	Ser	Gly	Pro	Ser	Tyr	Glu	Phe	Gln	Leu	Thr		
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<213> Mouse

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Lys	Phe	Leu	Val	Val	Trp	Ala	Leu	Val	Leu	Leu	Ala	Asp	Phe	Val	Leu
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Glu	Phe	Arg	Phe	Glu	Tyr	Leu	Trp	Pro	Phe	Trp	Leu	Phe	Ile	Arg	Ser
	50					55					60				
Val	Tyr	Asp	Ser	Phe	Arg	Tyr	Gln	Gly	Leu	Ala	Phe	Ser	Val	Phe	Phe
65					70					75					80
Val	Cys	Val	Ala	Phe	Thr	Ser	Asn	Ile	Ile	Cys	Leu	Leu	Phe	Ile	Pro
				85					90					95	
Ile	Gln	Trp	Leu	Phe	Phe	Ala	Ala	Ser	Thr	Tyr	Val	Trp	Val	Gln	Tyr
			100					105					110		
Val	Trp	His	Thr	Glu	Arg	Gly	Val	Cys	Leu	Pro	Thr	Val	Ser	Leu	Trp
		115					120					125			
Ile	Leu	Phe	Val	Tyr	Ile	Glu	Ala	Ala	Ile	Arg	Phe	Lys	Asp	Leu	Lys
	130					135					140				
Asn	Phe	His	Val	Asp	Leu	Cys	Arg	Pro	Phe	Ala	Ala	His	Cys	Ile	Gly
145					150					155					160
Tyr	Pro	Val	Val	Thr	Leu	Gly	Phe	Gly	Phe	Lys	Ser	Tyr	Val	Ser	Tyr
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Lys	Met	Arg	Leu	Arg	Lys	Gln	Lys	Glu	Val	Gln	Lys	Glu	Asn	Glu	Phe
			180					185					190		
Tyr	Met	Gln	Leu	Leu	Gln	Gln	Ala	Leu	Pro	Pro	Glu	Gln	Gln	Met	Leu
		195					200					205			
Gln	Lys	Gln	Glu	Lys	Glu	Ala	Glu	Glu	Ala	Ala	Lys	Gly	Leu	Pro	Asp
		210				215					220				
Met	Asp	Ser	Ser	Ile	Leu	Ile	His	His	Asn	Gly	Gly	Ile	Pro	Ala	Asn
225					230					235					240
Lys	Lys	Leu	Ser	Thr	Thr	Leu	Pro	Glu	Ile	Glu	Tyr	Arg	Glu	Lys	Gly
				245					250					255	
Lys	Glu	Lys	Asp	Lys	Asp	Ala	Lys	Lys	His	Asn	Leu	Gly	Ile	Asn	Asn
			260					265					270		
Asn	Asn	Ile	Leu	Gln	Pro	Val	Asp	Ser	Lys	Ile	Gln	Glu	Ile	Glu	Tyr
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Ser	Thr	Glu	Asn	Leu	Leu	Lys	Glu	Asp	Ser	Cys	Thr	Ala	Ser	Ser	Lys
305					310					315					320
Asn	Tyr	Lys	Asn	Ala	Ser	Gly	Val	Val	Asn	Ser	Ser	Pro	Arg	Ser	His
			325						330					335	
Ser	Ala	Thr	Asn	Gly	Ser	Ile	Pro	Ser	Ser	Ser	Ser	Lys	Asn	Glu	Lys
			340					345					350		
Lys	Gln	Lys	Cys	Thr	Ser	Lys	Gly	Pro	Ser	Ala	His	Lys	Asp	Leu	Met
		355					360					365			
Glu	Asn	Cys	Ile	Pro	Asn	Asn	Gln	Leu	Ser	Lys	Pro	Asp	Ala	Leu	Val
	370					375					380				
Arg	Leu	Glu	Gln	Asp	Ile	Lys	Lys	Leu	Lys	Ala	Asp	Leu	Gln	Ala	Ser
385					390					395					400
Arg	Gln	Val	Glu	Gln	Glu	Leu	Arg	Ser	Gln	Ile	Ser	Ala	Leu	Ser	Ser
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 Asp Arg His Val Val Leu Ser
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 <213> Mouse

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 Arg Val Ser Cys Thr Tyr Asp Ala Leu Lys His Trp Gly Arg Arg Lys
 35 40 45
 Ala Trp Cys Arg Gln Leu Gly Glu Glu Gly Pro Cys Gln Arg Val Val
 50 55 60
 Ser Thr His Gly Val Trp Leu Leu Ala Phe Leu Lys Lys Arg Asn Gly
 65 70 75 80
 Ser Thr Val Ile Ala Asp Asp Thr Leu Ala Gly Thr Val Thr Ile Thr
 85 90 95
 Leu Lys Asn Leu Gln Ala Gly Asp Ala Gly Leu Tyr Gln Cys Gln Ser
 100 105 110
 Leu Arg Gly Arg Glu Ala Glu Val Leu Gln Lys Val Leu Val Glu Val
 115 120 125
 Leu Glu Asp Pro Leu Asp Asp Gln Asp Ala Gly Asp Leu Trp Val Pro
 130 135 140
 Glu Glu Ser Ser Ser Phe Glu Gly Ala Gln Val Glu His Ser Thr Ser
 145 150 155 160
 Arg Asn Gln Glu Thr Ser Phe Pro Pro Thr Ser Ile Leu Leu Leu Leu
 165 170 175
 Ala Cys Val Leu Leu Ser Lys Phe Leu Ala Ala Ser Ile Leu Trp Ala
 180 185 190
 Val Ala Arg Gly Arg Gln Lys Pro Gly Thr Pro Val Val Arg Gly Leu
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 Asp Cys Gly Gln Asp Ala Gly His Gln Leu Gln Ile Leu Thr Gly Pro
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 Gly Gly Thr
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 Gly His Ile Val Thr Ser Gln Asp Ser Gly Thr Met Thr Ser Lys Asn
 35 40 45

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Tyr	Pro	Gly	Thr	Tyr	Pro	Asn	Tyr	Thr	Val	Cys	Glu	Lys	Ile	Ile	Thr
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65					70					75				80	
Glu	Ser	Lys	Thr	Cys	Ala	Ser	Asp	Tyr	Leu	Leu	Phe	Ser	Ser	Ala	Thr
				85					90					95	
Asp	Gln	Tyr	Gly	Pro	Tyr	Cys	Gly	Ser	Trp	Ala	Val	Pro	Lys	Glu	Leu
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Arg	Leu	Asn	Ser	Asn	Glu	Val	Thr	Val	Leu	Phe	Lys	Ser	Gly	Ser	His
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Ile	Ser	Gly	Arg	Gly	Phe	Leu	Leu	Thr	Tyr	Ala	Ser	Ser	Asp	His	Pro
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Asp	Leu	Ile	Thr	Cys	Leu	Glu	Arg	Gly	Ser	His	Tyr	Phe	Glu	Glu	Lys
145					150					155					160
Tyr	Ser	Lys	Phe	Cys	Pro	Ala	Gly	Cys	Arg	Asp	Ile	Ala	Arg	Asp	Ile
				165					170					175	
Ser	Gly	Asn	Thr	Lys	Asp	Gly	Tyr	Arg	Asp	Thr	Ser	Leu	Leu	Cys	Lys
			180					185					190		
Ala	Ala	Ile	His	Ala	Gly	Ile	Ile	Thr	Asp	Glu	Leu	Gly	Gly	His	Ile
		195					200					205			
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	210					215					220				
Asn	Gly	Val	Leu	Ser	Arg	His	Gly	Ser	Leu	Ser	Glu	Lys	Arg	Phe	Leu
225					230					235					240
Phe	Thr	Thr	Pro	Gly	Met	Asn	Ile	Thr	Thr	Val	Ala	Ile	Pro	Ser	Val
				245					250					255	
Ile	Phe	Ile	Ala	Leu	Leu	Leu	Thr	Gly	Met	Gly	Ile	Phe	Ala	Ile	Cys
			260					265					270		
Arg	Lys	Arg	Lys	Lys	Lys	Gly	Asn	Pro	Tyr	Val	Ser	Ala	Asp	Ala	Gln
	275						280					285			
Lys	Thr	Gly	Cys	Trp	Lys	Gln	Ile	Lys	Tyr	Pro	Phe	Ala	Arg	His	Gln
	290					295					300				
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305					310					315					320
Lys	Leu	Asp	Leu	Ile	Thr	Ser	Asp	Met	Ala	Asp	Tyr	Gln	Gln	Pro	Leu
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Met	Ile	Gly	Thr	Gly	Thr	Val	Ala	Arg	Lys	Gly	Ser	Thr	Phe	Arg	Pro
			340					345					350		
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		355					360					365			
His	Tyr	Asp	Cys	Pro	His	Arg	Pro	Gly	Arg	His	Glu	Tyr	Ala	Leu	Pro
	370					375					380				
Leu	Thr	His	Ser	Glu	Pro	Glu	Tyr	Ala	Thr	Pro	Ile	Val	Glu	Arg	His
385					390					395					400
Leu	Leu	Arg	Ala	His	Thr	Phe	Ser	Thr	Gln	Ser	Gly	Tyr	Arg	Val	Pro
				405					410					415	
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Pro	Ala	Thr	Gly	Ala	Thr	Gln	Val	Glu	Ser	Tyr	Gln	Arg	Pro	Ala	Ser
		435					440					445			
Pro	Lys	Pro	Val	Gly	Gly	Gly	Tyr	Asp	Lys	Pro	Ala	Ala	Ser	Ser	Phe
	450					455					460				
Leu	Asp	Ser	Arg	Asp	Pro	Ala	Ser	Gln	Ser	Gln	Met	Thr	Ser	Gly	Gly
465					470					475					480
Asp	Asp	Gly	Tyr	Ser	Ala	Pro	Arg	Asn	Gly	Leu	Ala	Pro	Leu	Asn	Gln
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Thr	Ala	Met	Thr	Ala	Leu	Leu									

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<212> PRT
<213> Mouse

<400> 52

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Leu	Arg	Leu	Val	Gly	Pro	Ala	Asp	Arg	Pro	Lys	Glu	Gly	Arg	Leu	Glu
		35					40					45			
Val	Leu	His	Gln	Gly	Gln	Trp	Gly	Thr	Val	Cys	Asp	Asp	Asp	Phe	Ala
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Leu	Gln	Glu	Ala	Thr	Val	Ala	Cys	Arg	Gln	Leu	Gly	Phe	Glu	Ser	Ala
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Leu	Thr	Trp	Ala	His	Ser	Ala	Lys	Tyr	Gly	Gln	Gly	Glu	Gly	Pro	Ile
				85					90					95	
Trp	Leu	Asp	Asn	Val	Arg	Cys	Leu	Gly	Thr	Glu	Lys	Thr	Leu	Asp	Gln
			100					105					110		
Cys	Gly	Ser	Asn	Gly	Trp	Gly	Ile	Ser	Asp	Cys	Arg	His	Ser	Glu	Asp
		115					120					125			
Val	Gly	Val	Val	Cys	His	Pro	Arg	Arg	Gln	His	Gly	Tyr	His	Ser	Glu
	130					135					140				
Lys	Val	Ser	Asn	Ala	Leu	Gly	Pro	Gln	Gly	Arg	Arg	Leu	Glu	Glu	Val
145					150					155					160
Arg	Leu	Lys	Pro	Ile	Leu	Ala	Ser	Ala	Lys	Arg	His	Ser	Pro	Val	Thr
				165					170					175	
Glu	Gly	Ala	Val	Glu	Val	Arg	Tyr	Asp	Gly	His	Trp	Arg	Gln	Val	Cys
			180					185					190		
Asp	Gln	Gly	Trp	Thr	Met	Asn	Asn	Ser	Arg	Val	Val	Cys	Gly	Met	Leu
		195					200					205			
Gly	Phe	Pro	Ser	Gln	Thr	Ser	Val	Asn	Ser	His	Tyr	Tyr	Arg	Lys	Val
	210					215					220				
Trp	Asn	Leu	Lys	Met	Lys	Asp	Pro	Lys	Ser	Arg	Leu	Asn	Ser	Leu	Thr
225					230					235					240
Lys	Lys	Asn	Ser	Phe	Trp	Ile	His	Arg	Val	Asp	Cys	Phe	Gly	Thr	Glu
				245					250					255	
Pro	His	Leu	Ala	Lys	Cys	Gln	Val	Gln	Val	Ala	Pro	Gly	Arg	Gly	Lys
			260					265					270		
Leu	Arg	Ala	Ala	Cys	Pro	Gly	Gly	Met	His	Ala	Val	Val	Ser	Cys	Val
		275					280					285			
Ala	Gly	Pro	His	Phe	Arg	Arg	Gln	Lys	Pro	Lys	Pro	Thr	Arg	Lys	Glu
	290					295					300				
Ser	His	Ala	Glu	Glu	Leu	Lys	Val	Arg	Leu	Arg	Ser	Gly	Ala	Gln	Val
305					310					315					320
Gly	Glu	Gly	Arg	Val	Glu	Val	Leu	Met	Asn	Arg	Gln	Trp	Gly	Thr	Val
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Cys	Asp	His	Arg	Trp	Asn	Leu	Ile	Ser	Ala	Ser	Val	Val	Cys	Arg	Gln
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		355					360					365			
Gln	Gly	Leu	Gly	Pro	Ile	His	Leu	Ser	Glu	Val	Arg	Cys	Arg	Gly	Tyr
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385						390						395						400
Cys	Gln	His	Ala	Asn	Asp	Ala	Ala	Val	Arg	Cys	Asn	Ile	Pro	Asp	Met			
				405					410					415				
Gly	Phe	Gln	Asn	Lys	Val	Arg	Leu	Ala	Gly	Gly	Arg	Asn	Ser	Glu	Glu			
				420					425					430				
Gly	Val	Val	Glu	Val	Gln	Val	Glu	Val	Asn	Gly	Val	Pro	Arg	Trp	Gly			
				435					440					445				
Thr	Val	Cys	Ser	Asp	His	Trp	Gly	Leu	Thr	Glu	Ala	Met	Val	Thr	Cys			
				450					455					460				
Arg	Gln	Leu	Gly	Leu	Gly	Phe	Ala	Asn	Phe	Ala	Leu	Lys	Asp	Thr	Trp			
465					470					475					480			
Tyr	Trp	Gln	Gly	Thr	Pro	Glu	Ala	Lys	Glu	Val	Val	Met	Ser	Gly	Val			
				485					490					495				
Arg	Cys	Ser	Gly	Thr	Glu	Met	Ala	Leu	Gln	Gln	Cys	Gln	Arg	His	Gly			
				500					505					510				
Pro	Val	His	Cys	Ser	His	Gly	Pro	Gly	Arg	Phe	Ser	Ala	Gly	Val	Ala			
				515					520					525				
Cys	Met	Asn	Ser	Ala	Pro	Asp	Leu	Val	Met	Asn	Ala	Gln	Leu	Val	Gln			
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545					550					555					560			
His	Glu	Glu	Asn	Cys	Leu	Ser	Lys	Ser	Ala	Asp	His	Met	Asp	Trp	Pro			
				565					570					575				
Tyr	Gly	Tyr	Arg	Arg	Leu	Leu	Arg	Phe	Ser	Ser	Gln	Ile	Tyr	Asn	Leu			
				580					585					590				
Gly	Arg	Ala	Asp	Phe	Arg	Pro	Lys	Ala	Gly	Arg	His	Ser	Trp	Ile	Trp			
				595					600					605				
His	Gln	Cys	His	Arg	His	Tyr	His	Ser	Ile	Glu	Val	Phe	Thr	His	Tyr			
				610					615					620				
Asp	Leu	Leu	Thr	Leu	Asn	Gly	Ser	Lys	Val	Ala	Glu	Gly	His	Lys	Ala			
625					630					635					640			
Ser	Phe	Cys	Leu	Glu	Asp	Thr	Asn	Cys	Pro	Ser	Gly	Val	Gln	Arg	Arg			
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Tyr	Ala	Cys	Ala	Asn	Phe	Gly	Glu	Gln	Gly	Val	Ala	Val	Gly	Cys	Trp			
				660					665					670				
Asp	Thr	Tyr	Arg	His	Asp	Ile	Asp	Cys	Gln	Trp	Val	Asp	Ile	Thr	Asp			
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Val	Gly	Pro	Gly	Asp	Tyr	Ile	Phe	Gln	Val	Val	Val	Asn	Pro	Thr	Asn			
				690					695					700				
Asp	Val	Ala	Glu	Ser	Asp	Phe	Ser	Asn	Asn	Met	Ile	Arg	Cys	Arg	Cys			
705					710					715					720			
Lys	Tyr	Asp	Gly	Gln	Arg	Val	Trp	Leu	His	Asn	Cys	His	Thr	Gly	Asp			
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Ser	Tyr	Arg	Ala	Asn	Ala	Glu	Leu	Ser	Glu	Gln	Glu	Gln	Arg	Leu				
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<212> PRT
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<211> 30

<213> Artificial Sequence

<223> Made in a lab

cccaagctta tgacgcggag ccccgcgctg

<211> 35

<213> Artificial Sequence

<223> Made in a lab

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<211> 37

<213> Artificial Sequence

<223> Made in a lab

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<211> 18

<213> Artificial Sequence

<220>

<223> Made in a lab

<400> 57

ctgtgcggct caagtgtg

18

<210> 58

<211> 3503

<212> DNA

<213> Mouse

<400> 58

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SECRET

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			20					25					30			
Ala	Lys	Lys	Asp	Thr	Arg	Glu	Val	Val	Ala	Ile	Lys	Cys	Val	Ala	Lys	
		35					40					45				
Lys	Ser	Leu	Asn	Lys	Ala	Ser	Val	Glu	Asn	Leu	Leu	Thr	Glu	Ile	Glu	
	50					55					60					
Ile	Leu	Lys	Gly	Ile	Arg	His	Pro	His	Ile	Val	Gln	Leu	Lys	Asp	Phe	
65					70					75					80	
Gln	Trp	Asp	Asn	Asp	Asn	Ile	Tyr	Leu	Ile	Met	Glu	Phe	Cys	Ala	Gly	
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Gly	Asp	Leu	Ser	Arg	Phe	Ile	His	Thr	Arg	Arg	Ile	Leu	Pro	Glu	Lys	
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	130					135					140					
Leu	Ser	Ser	Leu	Glu	Lys	Pro	His	Leu	Lys	Leu	Ala	Asp	Phe	Gly	Phe	
145					150					155					160	
Ala	Gln	His	Met	Ser	Pro	Trp	Asp	Glu	Lys	His	Val	Leu	Arg	Gly	Ser	
			165						170					175		
Pro	Leu	Tyr	Met	Ala	Pro	Glu	Met	Val	Cys	Arg	Arg	Gln	Tyr	Asp	Ala	
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Arg	Val	Asp	Leu	Trp	Ser	Val	Gly	Val	Ile	Leu	Tyr	Glu	Ala	Leu	Phe	
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Gly	Gln	Pro	Pro	Phe	Ala	Ser	Arg	Ser	Phe	Ser	Glu	Leu	Glu	Glu	Lys	
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Ile	Arg	Ser	Asn	Arg	Val	Ile	Glu	Val	Arg	Leu	Ala	Gly	Ser	Arg	His	
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Pro	Pro	Gly	Ile	Glu	Gly	Leu	Lys	Ala	Gln	Lys	Phe	Val	Gln	His	Cys	
			245						250					255		
Ser	Ala	Gly	Ser	Gly	Pro	Phe	Met	Ala	Val	Gly	His	Val	Leu	Trp	Trp	
			260					265					270			

Lys	Pro	Arg	Val	Trp	Ser	Val	Pro	Glu	Asp	Pro	Tyr	Gln	Pro	Arg	Gln
		275					280					285			
Ala	Thr	Asn	Asp	Gln	Ala	Gln	Ser	Ser	His	Ser	Pro	Gly	Leu	Glu	Ala
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Asn	Thr	His	Leu	Ile	Gly	Asp									
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 <211> 373
 <212> PRT
 <213> Mouse

<400> 60

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			20				25						30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35				40						45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70						75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
				85					90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
	115					120						125			
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Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145					150					155					160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
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Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala
			180					185					190		
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
		195				200						205			
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	210				215						220				
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Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
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Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro
		260						265					270		
Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
	275						280					285			
Asn	Ser	Thr	Ile	Asp	Val	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	
	290				295					300					
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305				310					315						320
Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly
			325						330					335	
Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu
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Pro Asp Pro Lys Pro Pro Gly Pro Pro Met Ala Ser Ser Ser Ser Ser
 355 360 365
 Thr Ser Leu Pro Trp
 370

<210> 61
 <211> 135
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<400> 61
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 Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala
 35 40 45
 Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys
 50 55 60
 Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His
 65 70 75 80
 Thr Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro
 85 90 95
 Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys
 100 105 110
 Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu
 115 120 125
 Asn Asn Gly Gly Arg Val Ser
 130 135

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